# IN THE UNITED STATES PATENT & TRADEMARK OFFICE

In re the Application of: Evans, David A.

Serial No.:

09/544,121

Filed: April 6, 2000

A Method and Apparatus For: for Information Mining and Filtering

**Assistant Commissioner for Patents** Washington, D.C. 20231

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Group Art Unit: 2172

Examiner: Ly, Anh

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**Technology Center 2100** 

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APPELLANT'S BRIEF

This is an appeal from a final rejection dated October 30, 2002.

#### I. Real Party in Interest

Claritech Corporation, Pittsburgh, Pennsylvania.

#### II. Related Appeals and Interferences

There are no related appeals or interferences.

#### III. **Status of Claims**

Claims 1, 3-22 and 25-33 are pending in the application. Claims 1, 9 and 22 are independent claims. The Examiner has rejected claims 1, 9, and 16 - 22 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,806,062 issued to Chen (hereinafter "Chen"). The Examiner further rejected claims 3 - 5 and 10 - 12 under 35 U.S.C. § 103(a) as being unpatentable over Chen in view of U.S. Patent No. 6,353,825 to Ponte hereinafter "Ponte"). The Examiner further rejected claims 6 - 8 and 13 - 15 under 35 U.S.C. § 103(a) as

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The Examiner included claim 2 in the rejection over *Chen*, but claim 2 had been earlier canceled.

being unpatentable over *Chen* in view of U.S. Patent No. 6,266,053 issued to French (hereinafter "French"). Finally, the Examiner rejected claims 25 - 33 under 35 U.S.C. § 103(a) as being unpatentable over *Chen* in view of U.S. Patent No. 6,029,171 issued to Smiga (hereinafter "Smiga").<sup>2</sup>

# IV. Status of Amendments

There are no pending amendments to the claims.

# V. Summary of Invention

The present invention combines a data processing structure with a graphical user interface (GUI) to create an information analysis tool wherein multiple functions are combined in a network to analyze information from multiple data sources. The functional network is created, and graphically represented to the user, by linking individual operations together. The combination of individual operations is not limited by the input or output characteristic of any single operation. The form of the input to or output from any individual operation, whether from a database or from another operation, is the same. That is, both the input to and the output from an analysis function is a list of document identifiers and corresponding document characteristics. Because the form of the input and output from each operation is the same, arbitrary combinations of operations may be created.

Moreover, functional networks of individual operations are used for database retrieval as well as to filter data streams. Furthermore, the user is able to create a visual representation of the structure forming a functional network which may be dynamically updated as new data is added or functions switched in or out. Because, *inter alia*, the network structure dynamically responds to information as it is presented to the network, the visual representation of the network

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<sup>&</sup>lt;sup>2</sup> The Examiner included claims 23 and 24 in the rejection over *Chen*, but those claims had earlier been canceled.

conveniently provides the user with information concerning the characteristics of the database or stream of data that are substantially unavailable through conventional search, filtering, or clustering techniques.

# VI. Argument

In the office action dated October 30, 2002, the Examiner rejected all pending independent claims as obvious over the single reference *Chen*, and made the rejections final. Applicant respectfully suggests that the rejection is improper. All of the independent claims include the step of creating a visual representation of a network of linked analysis operators. By the Examiner's own admission, *Chen* does not disclose creating a visual representation of such a network of operators. As the Examiner has failed to provide any evidence of a suggestion to modify *Chen*, or otherwise combine it with another reference, Applicant respectfully asserts that the rejected claims are not obvious in view of *Chen* or in view of any combination of cited references.

## A. Chen Does Not Disclose All of the Claimed Elements

The Examiner contends that *Chen* renders Applicant's claims obvious under 35

U.S.C.§103(a). The Examiner recognizes that *Chen* does not, by itself, disclose all Applicants' claim elements because the Examiner does not contend the claims are anticipated under 35

U.S.C. § 102. It is also clear that the Examiner bears the initial burden of establishing a *prima* facie case of unpatentability. In the present case, this burden requires the Examiner to establish a prima facie case concerning the existence in the prior art of claim elements the Examiner recognizes are missing from *Chen*. Specifically, to establish a prima facie case of obviousness, there must be some evidence of a suggestion or motivation, either in the reference itself or in the

knowledge generally available to one of ordinary skill in the art to modify the reference.<sup>3</sup> Where the references cited by the examiner fail to show "some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references," the Examiner has not carried the burden of establishing a *prima facie* case of unpatentability.<sup>4</sup> Where the Examiner fails to establish a *prima facie* case, the rejection is improper and shall be reversed.<sup>5</sup>

# 1. Chen Does Not Disclose Creating A Visual Representation Of Linked Operators

The three pending independent claims — claims 1, 9 and 22 — include common elements of the method of the present invention. Each of the independent claims includes the following elements of a method of analyzing information:

- i) selecting a plurality of operators for analyzing information,
- ii) linking those operators together in a network,
- iii) creating a visual representation of the network, and
- iv) after evaluating the operators against the data source, creating a visual representation of an output indicator for each of the operators.

Clearly, the claims at issue require creating a visual representation of a network of linked operators for analyzing information. During the prosecution of this application, the Examiner twice rejected independent claims 1, 9, and 22 under 35 U.S.C. § 103(a) as being unpatentable over the single *Chen* reference. This rejection was made in spite of the Examiner's admission in the most recent Office Action that "Chen *does not clearly disclose* 'creating a visual presentation of said network.' " 10/30/2002 Office Action, p. 3 (emphasis added). Furthermore, in the

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<sup>&</sup>lt;sup>3</sup> MPEP 706.02(j). See also In re Vaeck, 947 F.2d 488, 493, 20 U.S.P.Q.2d 1438, 1442 (Fed. Cir. 1991) (explaining that the teachings or suggestion to make the claimed invention must be found in the prior art and not based upon the Applicant's disclosure.)

<sup>&</sup>lt;sup>4</sup> In re Fine, 837 F.2d 1071, 1074, 5 U.S.P.Q.2d 1596, 1598-99 (Fed. Cir. 1988).

<sup>&</sup>lt;sup>5</sup> *Id*.

5/10/2002 Office Action, the Examiner admitted that "Chen does not clearly disclose 'operator for analyzing information."<sup>6</sup>

In arguing that *Chen* discloses the claim element of 'creating a visual presentation of said network [of linked operators]' the Examiner has variously relied on different portions of *Chen*. In the office action dated May 10, 2002, the Examiner pointed to column 3, lines 32-40. In the October 30, 2002 office action, the Examiner changed his position and relied on column 12, lines 11-30 and column 13, lines 24-42. Contrary to Examiner's shifting sands approach, none of these parts of the specification discloses the claimed element.

Specifically, *Chen* at col. 3, 11. 32-40 recites in its entirety:

Each section of the virtual database has an associated schema which describes the format of the records and fields. The virtual database itself has a schema which describes the format of the entire virtual database. The schema of the virtual database includes the schemas of each of the sections.

A virtual database (VDB), such as initial VDB 106, is self contained and may be operated on further by other operators. A VDB is self contained, in that if a record is referred to in a field in the VDB, then the referred to record is contained in the VDB.

Nowhere in this cited part of the specification does *Chen* discuss creating a visual representation, much less a visual representation of a *network of linked operators* for analyzing data in a database.<sup>7</sup>

Furthermore, *Chen* at col. 12, lines 11-30 recites in its entirety:

At this point in processing, it may be desirable to produce a visual representation of the information contained in VDB 318. Thus, a

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<sup>&</sup>lt;sup>6</sup> 05/10/2002 Office Action, p. 3. See also id. at p. 4 (admitting that "Chen does not clearly disclose 'a operator for analyzing information['] and [']visual representation.'"); id. at p. 5 (admitting that "Chen does not clearly disclose 'a plurality of operators for detecting whether information satisfies a desired constraint['] and [']visual representation.'").

<sup>&</sup>lt;sup>7</sup> If the Examiner asserts that he cited this disclosure of *Chen* in error, then it is improper for the Examiner to change his position in a subsequent Office Action and simultaneously make that subsequent Office Action final in an attempt to preclude Applicant from responding to the new position. "*Before* final rejection is in order a clear issue should be developed between the examiner and applicant." MPEP 706.07 (emphasis added).

graph operator 320 is used to convert VDB 318 into a file which represents a directed graph. The file 322 resulting from such an operation is shown in FIG. 13. The graph operator 320 is a terminal-operator, since it takes a VDB and converts the VDB to an external format. A layout operator 324 may then convert the file 322 representing the directed graph into a directed graph layout 326. Graph layout 326 may then be printed on a printer, such as printer 222. Such a layout operator 324 is an external operator, in that it processes information in an external format and outputs information in another external format. Layout operator 324 may be constructed in accordance with the techniques described in Gansner, E. R., Koutsofios, E., North, S.C., and Vo, K.P., A Technique for Drawing Directed Graphs, IEEE-TSE, March 1993, which is incorporated by reference herein. Additionally, the graph layout 326 may be displayed on a computer graphics display monitor, such as monitor 202.

While this portion of the specification discloses a "visual representation," it does not disclose visually representing the linked operators. Rather, the disclosed representation is of the "information contained in the [virtual database]." Representing information *in* the database is completely different from representing the claimed operators that are *not in* the database, but instead work *on* the database information.

Finally, Chen at col. 13, lines 24-42 recites in its entirety:

In addition to producing a visual representation of the difference information using layout operator 324 (FIG. 3), an interactive display operator may be provided such that a user may view a directed graph on a display screen and interact with the display to generate additional information. The graph file 322 is loaded into interactive display operator 328. Interactive display operator 328 may advantageously be configured as described in, North, S.C, Koutsofios, E., Applications of Graph Visualization, Graphics Interface '94, Banff, Alberta, 1994, pages 235-245, which is incorporated herein by reference. The interactive display operator 328 generates a graphical display 330 such that a user may view and interact with a displayed directed graph. The graphical display 330 may be displayed on a computer graphics display monitor such as monitor 202 (FIG. 2). The user interaction, such as selecting objects on the screen, may be controlled by a graphical user interface, such as mouse 206, in a manner well known in the art of graphical user interfaces.

Again, there is no disclosure of visually representing the linked operators. Rather, this disclosure refers to visually representing "difference information," which concerns information *in* the database, not the operators working on the database.<sup>8</sup>

Clearly, none of the disclosures in *Chen* cited by the Examiner disclose, teach or imply creating a visual representation of a network of linked operators as recited in independent claims 1, 9, and 22 of the present application. Linking a plurality of operators for analyzing information together in a network and creating a visual representation of such a network are novel concepts that the Examiner clearly misunderstands. This misunderstanding of the claims at issue is clearly evident from the Examiner's shifting sands interpretation of *Chen*. Accordingly, rejection of claims 1, 9, and 16-22 as obvious over the single reference of *Chen* is improper and should be reversed.

#### 2. Chen Does Not Disclose Other Claim Elements

In addition to the elements discussed above, claims 1 and 9 also include the step of "creating a plurality of output indicators corresponding to each of said operators on said visual representation of said network, wherein said output indicators visually represent a quantified output of said corresponding operators." *Chen* does not disclose this element because, *inter alia*, there is no disclosure of a "visual representation of said [operator] network" in *Chen* (as discussed above) and so there can be no disclosure of "output indicators corresponding" to the network. Notwithstanding Examiner's current interpretation of *Chen*, the fact that the Examiner recognized that *Chen* does not disclose this element is evident from the fact that original claim 16 (containing this same element) was only rejected as obvious over a combination of *Chen*, in view of U.S. Patent 5,915,249 to *Spencer* (hereinafter "*Spencer*") and further in view of U.S.

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<sup>&</sup>lt;sup>8</sup> This part of the specification refers to "using" a "layout operator" or an "interactive display operator." These disclosed operators are tools used to create the physical display. They are distinct from the claimed operators which perform functions on the database.

Patent No. 5,911,138 to Li et al., (hereinafter "Li"). Had Chen disclosed this element, there would be no need to refer to the combination of references. Again, the Examiner's shifting sands argument is insufficient, especially in light of his earlier argument concerning the combination of three references, to carry his burden to establish that the claimed invention is obvious.

B. The Combination of *Chen, Ponte, French* and *Smiga* — Either Individually or in Combination — Does Not Disclose All of the Claimed Elements

As explained above, *Chen* does not suggest or disclose all of the elements of independent claims 1, 9, and 22. Also, the Examiner has cited the secondary references of *Ponte, French* and *Smiga* as necessary only to render dependent claim elements obvious. Since the Examiner does not contend that these additional references apply to the elements of independent claims 1, 9, and 22, the combination of *Chen* with any of these secondary reference fails to render any independent claim obvious. Moreover, the dependent claims are also non-obvious for the same reason. Specifically, the combination of cited references does not disclose selecting a plurality of operators for analyzing information, linking the operators together in a network, creating a visual network of the operators, creating corresponding output indicators and incorporating the output indicators into the visual network. Furthermore, the cited references do not suggest modifying their respective disclosures to produce the claimed invention. Therefore, pending claims 1, 3-22 and 25-33 are not obvious in view of the cited references.

1. The Combination of *Chen*, and *Ponte*— Either Individually or in Combination— Does Not Disclose All of the Claimed Elements

Claims 3-5 and 10-12 include the following elements:

- a method used to analyze information including
- i) compiling a network of linked operators for analyzing information by combining multiple operators into a composite operator,

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<sup>&</sup>lt;sup>9</sup> The Spencer and Li references are not now at issue.

- ii) assigning a document identifier to an operator;
- iii) combining those operators with assigned identifiers into an operator database, and
- iv) inverting the operator database.

The Examiner has cited the secondary reference of *Ponte* as disclosing "document identifier, feature of document and term counts as claimed" sufficient to render obvious all of elements i), ii), iii), and iv) listed. Once again, the Examiner misunderstands the novel aspects of the invention as claimed. As an initial matter, the document identifiers, features of documents and term counts disclosed in *Ponte* simply do not teach, disclose, or imply combining multiple operators into a composite operator, or assigning a document identifier to an operator. The failure of *Ponte* to disclose such features is alone sufficient to overcome the obviousness rejection of claims 3-5 and 10-12. It must also be pointed out, however, that nowhere does *Ponte* discuss combining operators into an *operator database*, much less inverting such an operator database. *Ponte* does discuss modifying individual search operators by adjusting weights assigned to search terms, or by adding or removing search terms in the operator. But modifying an operator or even modifying multiple operators is clearly distinct from combining multiple operators having document identifiers into a database, and it is even further distinct from inverting such a database in an information analysis process.

# C. There is no Motivation to Combine Chen, Ponte, French and Smiga

In this case, the Examiner attempts to combine *Chen* and *Ponte, French* and *Smiga* to render various dependent claim elements obvious. It is well settled that "[o]bviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination." Although the suggestion to achieve

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<sup>&</sup>lt;sup>10</sup> 10/30/02 Office Action, p. 7; see also id. at p. 8.

<sup>&</sup>lt;sup>11</sup> ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984).

the claimed invention may be found either explicitly or implicitly within the references themselves, there must be some evidence that the skilled artisan would select certain elements from the prior art references and combine them in the manner claimed. That is, generalizations about the specific teachings of references are insufficient to support a determination of obviousness.

# 1. There is no Motivation to Combine Chen and French

In addition to the elements of independent claims 1 and 9, claims 6-8 and 13-15 further include the following elements:

- i) data sources comprising a text file, audio file, video file or picture file, and
- ii) a computer network, including the Internet;

The Examiner has cited *French*'s disclosure of "multimedia data, [and] network such as Internet as claimed" against dependent claims 6-8 and 13-15, and argues that *French* renders the elements of claims 6-8 and 13-15 obvious. There is no dispute that multimedia data and the Internet as disclosed in *French* are prior art references. However, "[w]hen a rejection depends on a combination of prior art references, there must be some teaching, suggestion, or motivation to combine the reference." Moreover,

a rejection cannot be predicated on the mere identification in [the references] of individual components of claimed limitations. Rather, particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed. 15

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<sup>&</sup>lt;sup>12</sup> Ecolochem, Inc. v. Southern California Edison Co., 227 F.3d 1361, 1372, 56 U.S.P.Q.2d 1065, 1073 (Fed. Cir. 2000) (holding that without specific evidence to modify the teachings of prior art references, the obviousness determination, based upon such modified references, is improper).

<sup>13 10/30/02</sup> Office Action, p. 8 (rejecting claims 6-8); see also id. at p. 9 (rejecting claims 13-15).

<sup>&</sup>lt;sup>14</sup> In re Rouffet, 149 F.3d 1350, 1354, 47 U.S.P.Q.2d 1453, 1456 (Fed. Cir. 1998).

<sup>&</sup>lt;sup>15</sup> In re Kotzab, 217 F.3d 1365, 1371, 55 U.S.P.Q.2d 1313, 1318 (Fed. Cir. 2000) (holding that the Board did not make out a proper prima facie case of obviousness when it combined and modified multiple references to make the claimed invention).

In other words, the prior art *itself* must suggest the desirability of the modification. <sup>16</sup>

Here, the Examiner has pointed to no particular teaching, suggestion or motivation in either *Chen* or *French* to combine multimedia data and the Internet with a data analysis system that includes, *inter alia*, the step of creating a visual representation of a network of linked analysis operators.

Accordingly, Examiner's rejection of claims 6-8 and 13-15 as obvious over *Chen* in view of *French* is improper.

# 2. There is no Motivation to Combine Chen and Smiga

Dependent claims 25-33 include the steps of automatically generating various forms of output responses and output indicators, including text messages, e-mail and voicemail messages, and transmitting the various output responses and output indicators over a computer network. The Examiner has cited *Smiga*'s disclosure of "e-mail messages as well as voice mail messages ...; text expression such as text message and response indicator as claimed ...; and transmitting information over network as claimed "17 against dependent claims 25-33, and argues that *Smiga* renders the elements of dependent claims 25-33 obvious. There is no dispute that the e-mail and voicemail messages, text messages and transmission over a network as disclosed in *Smiga* are prior art references. However, the Examiner has pointed to no particular teaching, suggestion or motivation in either *Chen* or *Smiga* to combine e-mail and voicemail messages, text messages and transmission over a network; with a data analysis system that includes, *inter alia*, the step of creating a visual representation of a network of linked analysis operators. Accordingly, Examiner's rejection of claims 25-33 as obvious over *Chen* in veiw of *Smiga* is improper.

<sup>&</sup>lt;sup>16</sup> In re Gordon, 733 F.2d 900, 902, 221 U.S.P.Q.2d 1125, 1127 (Fed. Cir. 1984).

<sup>&</sup>lt;sup>17</sup> 10/30/02 Office Action, p. 9.

# D. Use of Hindsight Reconstruction is Inappropriate to Render Claim Obvious

Here, in order to substantiate an obviousness rejection, the Examiner must point to some particular teaching or suggestion in *Chen*, *Ponte*, *French* or *Smiga* that supports combining and modifying all three references to include the claimed steps of "selecting a plurality of operators for analyzing information"; "linking said operators together in a network"; "creating a visual representation of said network"; "evaluating said operators . . ." and "creating a plurality of output indicators corresponding to each of said operators . . ." Moreover, when determining the issue of obviousness, the Examiner must consider the claimed invention *as a whole*. <sup>18</sup> In other words, the Examiner cannot use hindsight reconstruction to render the present invention obvious. The fact that the Examiner had to pick and choose discrete portions from each of the four cited references to render the dependent claims of the present invention obvious shows that the invention would not have been obvious to a person of ordinary skill in the art at the time the invention was made. That is, the Examiner used the Applicant's disclosure as a blueprint to render the present invention obvious. Such hindsight reconstruction is certainly improper. <sup>19</sup> Accordingly, all pending claims are patentable.

# E. Other Pending Claims

All pending dependent claims — claims 3-8, 10-21 and 25-33 — are dependent upon claims 1, 9 and 22 which have been shown to be patentable. Thus, the other pending claims are also patentable.

#### VII. Conclusion

Because (i) Chen, Ponte, French and Smiga, either individually or in combination, fail to disclose all of the elements of claims 1, 9, and 22 as currently presented, particularly the

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<sup>&</sup>lt;sup>18</sup> Jones v. Hardy, 727 F.2d 1524, 1529, 220 U.S.P.Q.2d 1021, 1024 (Fed. Cir. 1984).

<sup>&</sup>lt;sup>19</sup> In re Rouffet, 149 F.3d at 1357, 47 U.S.P.Q.2d at 1457.

elements that relate to "selecting a plurality of operators for analyzing information", "linking said operators together in a network", "creating a visual representation of said network", "evaluating said operators . . . " and "creating a plurality of output indicators corresponding to each of said operators . . . " and (ii) because the Examiner has not pointed to any portion of Chen, Ponte, French and Smiga that suggests modifying any of those references to produce the claimed invention, the pending claims are patentable in view of the three cited references. Accordingly, Applicant respectfully requests reversal of the rejection of claims 1, 3-22 and 25-33 over the cited references.

Respectfully submitted,

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## APPENDIX

# **Pending Claims**

A computer assisted method for analyzing information from a data source, comprising:
 selecting one or more data sources;

selecting a plurality of operators for analyzing information;

linking said plurality of operators together in a network;

creating a visual representation of said network;

detecting whether said data source is a data stream or a database;

evaluating said operators against a database when said data source includes one or more databases and evaluating a data unit against said operator when said data source includes one or more data streams; and

creating a plurality of output indicators corresponding to each of said operators on said visual representation of said network, wherein said output indicators visually represent a quantified output of said corresponding operators.

3. A method as in claim 1, further comprising:

compiling said network by combining one or more operators into a single composite operator when said data source includes one or more data streams; and

compiling said network by assigning a document identifier to one or more operators, combining said operators having a document identifier into an operator database and inverting that operator database when said data source includes one or more databases.

4. A method as in claim 3, wherein:

each operator receives a listing of data context identifiers having one or more corresponding document features.

5. A method as in claim 4, wherein:

said document features are chosen from a group consisting of terms, extracted entities, term relations, term counts, term distribution, discourse markers, feature distribution, reference data deriving from said data source.

- 6. A method as in claim 1, wherein said data source contains at least one of the group consisting of a text file, audio file, video file, graphic file, and picture file.
- 7. A method as in claim 6, wherein:
  data from said data source is transmitted over a network to a computer which evaluates said data.
- 8. A method as in claim 7, wherein said network comprises the Internet.
- A computer assisted method for analyzing information from a data source, comprising:
   selecting one or more data sources;

selecting a plurality of operators for analyzing information;

linking said operators together in a network;

creating a visual representation of said network;

linking said network to said data source in said visual representation;

compiling said network and evaluating said data source using said network when said network is visually linked to said data source; and

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creating a plurality of output indicators corresponding to each of said operators on said visual representation of said network, wherein said output indicators visually represent a quantified output of said corresponding operators.

# 10. A method as in claim 9, further comprising:

compiling said network by combining one or more operators into a single composite operator when said data source includes one or more data streams; and

compiling said network by assigning a document identifier to one or more operators, combining said operators having a document identifier into an operator database and inverting that operator database when said data source includes one or more databases.

# 11. A method as in claim 10, wherein:

each operator receives a listing of data context identifiers having one or more corresponding document features.

# 12. A method as in claim 11, wherein:

said document features are chosen from a group consisting of terms, extracted entities, term relations, term counts, term distribution, discourse markers, feature distribution, reference data deriving from said data source.

- 13. A method as in claim 12, wherein said data source contains at least one of the group consisting of a text file, audio file, video file, graphic file, and picture file.
- 14. A method as in claim 13, wherein:

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data from said data source is transmitted over a network to a computer which evaluates said data.

- 15. A method as in claim 14, wherein said network comprises the Internet.
- 16. A method as in claim 9, wherein said output indicators further represent a quantified input of said corresponding operators.
- 17. A method as in claim 16, wherein said output indicators display the number of input documents and the number of output documents for said operators.
- 18. A method as in claim 17 wherein said display comprises a pie chart.
- 19. A method as in claim 17 wherein said display comprises a bar chart.
- 20. A method as in claim 17 wherein said display comprises a term map.
- 21. A method as in claim 9, wherein each of said output indicators represent a response function initiated by said corresponding operator.
- 22. A method for automatically responding to information received from a data stream, comprising:

selecting a plurality of operators for detecting whether information satisfies a desired constraint;

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linking said operators together in a network;

creating a visual representation of said network;

linking said data stream to said network in said visual representation;

evaluating said received information against said network;

automatically generating a programmed response when a constraint from at least one network operator is satisfied; and

creating an output indicator, said indicator representing a response function initiated by one of said operators.

- 25. A method, as in claim 22, wherein said programmed response comprises generating a text message.
- 26. A method, as in claim 22, further comprising: creating an output indicator, said indicator representing a response function initiated by one of said operators.
- 27. A method, as in claim 26, wherein said output indicator represents an email message.
- 28. A method, as in claim 26, wherein said output indicator represents a telephone voice message.
- 29. A method, as in claim 26, wherein said output indicator represents a text message.
- 30. A method, as in claim 26, further comprising:

transmitting said output indicator over a computer network.

- 31. A method, as in claim 27, further comprising: transmitting said output indicator over a computer network.
- 32. A method, as in claim 28, further comprising: transmitting said output indicator over a computer network.
- 33. A method, as in claim 29, further comprising: transmitting said output indicator over a computer network.



# IN THE UNITED STATES PATENT & TRADEMARK OFFICE

| In re the Application of:          | )                      |
|------------------------------------|------------------------|
| Evans                              | )                      |
| Serial No.: 09/544,121             | ) Group Art Unit: 2172 |
| Seliai No.: 09/344,121             | ) Examiner: Ly, Anh    |
| Filed: April 6, 2000               | )                      |
|                                    | )                      |
| For: A METHOD AND APPARATUS        | )                      |
| FOR INFORMATION MINING AND         | )                      |
| FILTERING                          | RECEIVED               |
| Assistant Commissioner for Patents | APR 1 0 7003           |
| Washington, D.C. 20231             | Technology Center 210  |

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